

REMARKS

Pending Claims

Claims 1-3 and 5-6 have been amended. No claims have been canceled. New claims 7-10 have been added. Accordingly, claims 1-10 are now pending in this application. A Request for Continued Examination has been submitted with this Amendment.

The Office Action was Improperly Made Final

The Office Action mailed July 21, 2006, was improperly made final. In particular, on page 7 of the Office Action, at Item 7, it is asserted that "Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action." However, Applicants made no amendments to the claims in their prior response. Rather, it was disqualification of the Mimatsu reference under 35 U.S.C. §103(c) that necessitated the new grounds of rejection. It is respectfully submitted that because a new grounds of rejection was raised through no fault of Applicants, the Office Action should not have been made final.

Priority

Applicants appreciate the Examiner's acknowledgment of the claim for priority and safe receipt of the priority document submitted by Applicants on May 3, 2006.

35 U.S.C. § 102

Claims 1-6 stand rejected under 35 U.S.C. §102(e) as being anticipated by Mimatsu et al., U.S. Pub. No. 2005/0010733, (hereafter "Mimatsu"). Applicants respectfully traverse these rejections, and request reconsideration and withdrawal of the rejections for the following reasons.

The present invention manages duplication of data, by using an identification information list, which is information for managing volumes an application uses, and a first duplication definition information, which records that data is copied between a plurality of disk subsystems. More specifically, these pieces of information are compared to each other and, based on the comparison result, addition or deletion of a volume as a copy destination is made.

For example, addition or deletion of the volume is carried out in the comparing step, addition step and deletion step of claim 1. Thus, a first feature of the present invention resides in that two pieces of information, namely, the identification information list and the first duplication definition information are compared for determining whether to add or delete a volume to the first duplication definition information.

In contrast, Mimatsu is directed to managing backup data that is stored in a disk volume by storing management information, such as backup data generation date, and the like, so that the disk volume backup data can be managed in the same manner as the backup data stored in tapes. In order to achieve this, Mimatsu provides on the disk array the regions in which the management information for the

backup is stored for each disk volume and the interface through which the management information of a particular disk volume is read and written from the external computer (see par. [0011]).

Further, Mimatsu describes that when the data within the disk array are backed up, the backup program on the computer orders the disk array to generate the snapshot of the data-stored disk volumes. The disk array produces the snapshot of the disk volumes by using the data mirror function or the snapshot function. The computer transmits the information about the backup program and such information as backup date, time and content identifiers pertaining to the snapshot to the disk array. The disk array causes these information to be recorded on the storage regions associated with the disk volumes of the snapshot. The backup program also causes these management information to be recorded on the catalog of the backup data, so that the generated snapshot can be added to manage as the backup data (see par. [0012]).

Thus, the backup data are stored in the storage regions within the disk array, and the management information for the backup data are stored within the disk array in association with the storage regions of the backup data. The management information includes the information about the backed-up data, and the information about the regions in which the backup data have been stored (see par. [0013]).

Therefore, Mimatsu only stores the backup data and the management information. Mimatsu fails to disclose managing volumes and duplication separately, or using the information for comparison to select a copy destination volume of the

information and carrying out copying if copying of the information is necessary, as is done in the present invention.

The Office Action asserts the Mimatsu teaches the first comparing step of Applicants' invention at par. [0118]. However, it is respectfully submitted that all this portion of Mimatsu teaches is that backup data and its management information are stored in association with each other within the disk array. This portion of Mimatsu teaches nothing regarding comparing an identification information list read out in an identification information reading step, with a first duplication definition information read out in a duplication definition reading step, or using the results of the comparison for an addition step or a deletion step, as specified by Applicant's claim

1. Accordingly, it is respectfully submitted that claim 1 is allowable over Mimatsu and the other art of record. Further, independent claims 5, 6 and 7 include a comparison limitation similar to that discussed above with respect to claim 1, and are allowable over Mimatsu for the same reasons as set forth above. The remaining claims depend from these claims, are directed to additional patentable features of the invention, and are allowable at least because they depend from an allowable base claim.

Conclusion

In view of the foregoing amendments and remarks, Applicants believe that the above-identified application is now in condition for allowance. Accordingly, reconsideration and allowance of the claims is respectfully requested.

Respectfully submitted,



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